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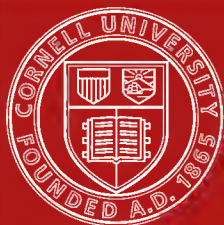
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United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Foreign Seed and Plant Introduction,

WASHINGTON, D. C.

THE FORCING AND BLANCHING OF DASHEEN SHOOTS.

By ROBERT A. YOUNG, *Scientific Assistant.*

INTRODUCTION.

As the growing of the dasheen as a tuber crop begins to assume commercial proportions, it seems desirable to make available to growers and others who may be interested the details of a special treatment of the corms (large spherical tubers) by which a delicate fresh vegetable for winter use may be obtained. Brief reference was made to this, the forcing and blanching of the shoots, in a recent publication on the dasheen.¹ Credit is due to Mr. P. H. Dorsett, of the Bureau of Plant Industry, for the original suggestion of raising the shoots in this way. Other workers associated with the bureau have also contributed helpful suggestions during the progress of the experiments. Acknowledgment is also due to Dr. J. H. Kellogg, Battle Creek, Mich., for carrying out the extensive greenhouse-bench experiments illustrated in this paper.

The young blanched shoots of the dasheen make a very tender and delicious vegetable and are used much like asparagus. The flavor is delicate and is suggestive of mushrooms. In order to destroy a slight acidity, a special method of cooking is required, which is described on another page.

CULTURE.

To obtain the shoots, corms (fig. 1), weighing 2 to 3 pounds or more, are planted in a fairly warm place in very moist sand or sandy soil. A half-and-half mixture of sand and ordinary potting soil has given good results. Wet sphagnum moss has also been used, but the sandy soil is probably better. The corms are just covered, the terminal bud being at the surface. Provision must be made for keeping the shoots in total darkness from the time they begin to grow (figs. 2 and 3). Water should be supplied often enough to keep the sand or soil continuously moist.

¹ Young, Robert A. The dasheen, a root crop for the Southern States. U. S. Department of Agriculture, Bureau of Plant Industry, Circular 127, 12 pp.. 1913.

Several ways of forcing and blanching dasheen shoots have been tried and all have been successful in that satisfactory shoots were grown. In any instance, however, in which the raising of shoots is to be undertaken, the method best adapted should be selected. In



FIG. 1. A dasheen corm weighing nearly 5 pounds. Corms of 2 to 3½ pounds weight are used for forcing.

the first experiments made by the Department of Agriculture, both sand and sphagnum moss were used in which to plant the corms. In one of these blanching was accomplished by keeping the shoots covered with sand, while in the others a frame covered with several



FIG. 2.—Dasheen shoots forced in a box, with bottom heat, and blanched by being inclosed in a burlap-covered frame. The shoots at the right are from corms planted in wet sphagnum moss, while those in the center and at the left are from corms planted in wet sand.



FIG. 3.—A bed of dasheen corms in a greenhouse at Battle Creek, Mich. The board covering in course of construction is for the purpose of blanching the shoots, which will begin to appear in three to four weeks. The corms were planted about the middle of January.

thicknesses of burlap was used (fig. 2). The boxes in which these experiments were carried on were placed in a warm greenhouse on a bench that was supplied with bottom heat.

Neither of the foregoing methods is adapted for use where the production of shoots on a large scale is desired. For such a case, pro-



FIG. 4.—The same bench shown in figure 3 with the covering removed, less than six weeks later. It is usually better to cut the shoots before the leaves expand as much as they have in the experiment here shown. (Photographed by the Battle Creek Sanitarium.)

vided the weather is not too cold and a suitable greenhouse is available, a bed may be prepared under a bench. The space may be darkened by hanging several thicknesses of heavy paper or burlap from the sides of the bench. This plan is suited to the spring of the year, while those methods by which bottom heat can be applied may

be used at any time after the corms become available, in the late fall or early winter.

The method which is probably best for large-scale production is to use a raised bed provided with bottom heat (fig. 3). A cover, practically light proof and with sides 18 to 24 inches high, is required.

The temperature inside this should be about 70° F. The soil (or sand) should be a little warmer, say, 80°. To obtain this temperature it is best to partially inclose the space beneath the bed.

The first crop of shoots is usually ready for cutting in 35 to 40 days after planting. From 6 to 10 cuttings can be made at intervals of 10 to 14 days, depending upon temperature and the size of the corms used. The shoots are cut close to the corm, and, as far as practicable, before the leaves begin to expand (fig. 4). They will then usually be 8 to 16 inches long.

After the corms become exhausted, which is indicated by the weak growth of the shoots, they are discarded.

Out of doors in a warm region, as in Florida, the corms may be planted in rows in sandy soil and the

shoots blanched by ridging up the soil as growth progresses. Instead of ridging the soil, boards may be used, as in blanching celery, but the shoots must not at any stage of their growth be exposed to light for any considerable length of time.



FIG. 5.—A bunch of forced dasheen shoots, 7½ inches long. These shoots must be kept in a cool, dry place or they will wilt and turn brown. In the raw state they are acrid, but when cooked they are as delicate as asparagus.

HANDLING AND KEEPING.

The shoots have been found to keep well for several days if in a cool, dry place. As they are very succulent, however, it is better that the period of storage be very limited—not over two to four days when avoidable. A little ventilation is necessary, but as the shoots soon wilt if evaporation is too rapid a paraffined paper should be used in wrapping and a slight opening left.

Sometimes, when the shoots are to be kept for only a day or two before using, it may be advisable to wrap first in wet paper and then with paraffined paper, especially if the place where they are to be kept is not quite cool enough.

In figure 5 is shown a bunch of dasheen shoots ready for cooking. Those that were too long have been cut down to an average length.

USES.

As dasheen shoots are somewhat acid, they should never be tasted raw. Lemon juice in a little water has been found effective in relieving the irritation when the shoots are accidentally eaten.

The following recipes, although prepared with a good deal of care, are not considered as final, and it is hoped that housewives and others will try modifications of them:

(1) Cut the shoots into 2-inch lengths, pour on an abundance of boiling water, add salt, and boil for 12 minutes; drain, pour on enough cold milk¹ so that the shoots will be completely covered when it boils, season with salt, and boil for 5 minutes; drain, season with butter, and serve on toast, or plain. Cream sauce may be used in serving, if desired.

(2) Instead of boiling in milk after draining off the first water, add a little piece of bacon or other fat meat,² and then cover the shoots with cold water, season with salt, and boil for 5 minutes. Drain and serve.

Approved:

WM. A. TAYLOR,
Chief of Bureau.

JANUARY 6, 1914.

¹ The purpose in using cold milk or water after the first boiling is to prevent the shoots from becoming too soft.

² The fat of the milk or meat seems to assist in destroying the acidity.



